

### DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that: My residence, post office address and citizenship are as stated below next to my name. I believe I am the original, first and sole inventor (if only one name is listed at 201) below or an original, first and joint inventor (if plural names are listed at 201-208 below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

#### LIQUID CRYSTAL DISPLAY DEVICE

which is described and claimed in:

- the specification attached hereto.
- the specification in U.S. Application Serial Number 09/342,776, filed on June 29, 1999.
- the specification in PCT international application Number \_\_\_\_\_, filed on \_\_\_\_\_; and was amended on \_\_\_\_\_.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a). I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

#### Prior Foreign/PCT Applications and Any Priority Claims Under 35 U.S.C. 119:

Application No.	Filing Date	Country	Priority Claimed Under 35 U.S.C. 119?
10-183111	29,06,1998	Japan	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
10-239308	25,08,1998	Japan	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
11-130665	11,05,1999	Japan	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO

I hereby claim the benefit under 35 U.S.C. §120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below, and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of 35 U.S.C. §112, I acknowledge the duty to disclose material information as defined in 37 CFR §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:

Prior U.S. Applications or PCT International Applications Designating the U.S.-Benefit Under 35 U.S.C. §120				
U.S. Applications		Status (Check One)		
Application Serial No.	U.S. Filing Date	Patented	Pending	Abandoned
PCT Applications Designating the U.S.				
Application No.	Filing Date	U.S. Serial No. Assigned		

**CLAIM FOR BENEFIT OF PRIOR U.S. PROVISIONAL APPLICATION(S)**  
**(35 U.S.C. § 119(e))**

I hereby claim the benefit under Title 35, United States Code, §119(e) of any United States provisional application(s) listed below:

Applicant	Provisional Application Number	Filing Date

**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorney(s) with full powers of association, substitution and revocation to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Sewall P. Bronstein (Reg. No. 16,919)  
David G. Conlin (Reg. No. 27,026)  
George W. Neuner (Reg. No. 26,964)  
Ernest V. Linek (Reg. No. 29,822)

Linda M. Buckley (Reg. No. 31,003)  
Ronald I. Eisenstein (Reg. No. 30,628)  
Henry D. Pahl, Jr. (Reg. No. 20,438)  
Peter J. Manus (Reg. No. 26,766)

David S. Resnick (Reg. No. 34,235)  
Peter F. Corless (Reg. No. 33,860)

SEND CORRESPONDENCE TO:		DIRECT TELEPHONE CALLS TO:	
Dike, Bronstein, Roberts & Cushman, LLP 130 Water Street Boston, Massachusetts 02109		(617) 523-3400	

	FULL NAME OF INVENTOR	LAST NAME <b>SHIMOSHIKIRYOH</b>	FIRST NAME <b>Fumikazu</b>	MIDDLE NAME
2 0 1	RESIDENCE & CITIZENSHIP	CITY <b>Tenri-shi</b>	STATE OR FOREIGN COUNTRY <b>Nara-ken, Japan</b>	COUNTRY OF CITIZENSHIP <b>Japan</b>
	POST OFFICE ADDRESS	POST OFFICE ADDRESS <b>Akebono-ryo 346, 2613-1, Ichinomoto-cho,</b>	CITY <b>Tenri-shi</b>	STATE OR COUNTRY AND ZIP CODE <b>Nara-kenJapan 632-0004</b>

	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME
2 0 2	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
	POST OFFICE ADDRESS	POST OFFICE ADDRESS	CITY	STATE OR COUNTRY AND ZIP CODE

	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME
2 0 3	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
	POST OFFICE ADDRESS	POST OFFICE ADDRESS	CITY	STATE OR COUNTRY AND ZIP CODE

	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME
2 0 4	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
	POST OFFICE ADDRESS	POST OFFICE ADDRESS	CITY	STATE OR COUNTRY AND ZIP CODE

2 0 5	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME
	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
	POST OFFICE ADDRESS	POST OFFICE ADDRESS	CITY	STATE OR COUNTRY AND ZIP CODE

2 0 6	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME
	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
	POST OFFICE ADDRESS	POST OFFICE ADDRESS	CITY	STATE OR COUNTRY AND ZIP CODE

2 0 7	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME
	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
	POST OFFICE ADDRESS	POST OFFICE ADDRESS	CITY	STATE OR COUNTRY AND ZIP CODE

2 0 8	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME
	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
	POST OFFICE ADDRESS	POST OFFICE ADDRESS	CITY	STATE OR COUNTRY AND ZIP CODE

I hereby further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Signature of Inventor 201 <i>Fumihaya Shimoshikiryoh</i>	Signature of Inventor 202
Date: August 2, 1999	Date:



DECEMBER 15, 1999

PTAS

DIKE, BRONSTEIN, ROBERTS & CUSHMAN, LLP  
DAVID G. CONLIN  
130 WATER STREET  
BOSTON, MA 02109

UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
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Washington, D.C. 20231



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DIKE BRONSTEIN  
ROBERTS CUSHMAN

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 09/27/1999

REEL/FRAME: 010269/0849  
NUMBER OF PAGES: 3

BRIEF: ..ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

SHIMOSHIKIRYOH, FUMIKAZU

DOC DATE: 08/02/1999

ASSIGNEE:

SHARP KABUSHIKI KAISHA  
22-22 NAGAIKE-CHO, ABENO-KU  
OSAKA, JAPAN

SERIAL NUMBER: 09342776

FILING DATE: 06/29/1999  
ISSUE DATE:

PATENT NUMBER:

MAYA BENNETT, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

09-30-1999

Docket No.: 49185(840)

U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Off

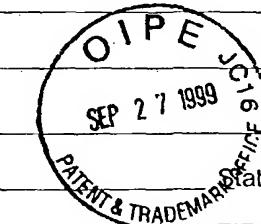
Tab settings → → → ▼

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To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof

1. Name of conveying party(ies): <b>FUMIKAZU SHIMOSHIKIRYOH</b>  <i>9.27.99</i>	2. Name and address of receiving party(ies):  Name: <b>SHARP KABUSHIKI KAISHA</b>  Address: <b>22-22 Nagaike-cho, Abeno-ku</b>
Additional names(s) of conveying party(ies)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3. Nature of conveyance:  <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger  <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name  <input type="checkbox"/> Other _____	  City: <b>Osaka</b> State/Prov.: _____  Country: <b>Japan</b> ZIP: _____
Execution Date: <b>August 2, 1999</b>	Additional name(s) & address(es) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



4. Application number(s) or registration numbers(s):

If this document is being filed together with a new application, the execution date of the application is: **August 2, 1999**

Patent Application No. **09/342,776** Filing date **6/29/99**

B. Patent No.(s)

Additional numbers  Yes  No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: **David G. Conlin**

Registration No. **27026**

Address: **Dike, Bronstein, Roberts & Cushman, LLP**

**130 Water Street**

City: **Boston** State/Prov.: **MA**

Country: **USA** ZIP: **02109**

6. Total number of applications and patents involved: **1**

7. Total fee (37 CFR 3.41): ..... \$ **40.00**

Enclosed - Any excess or insufficiency should be credited or debited to deposit account

Authorized to be charged to deposit account

8. Deposit account number:

**04-1105**

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9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

**David G. Conlin**

Name of Person Signing

Signature

*September 22, 1999*

**3**

Date

## **PATENTS ONLY**

### Tab settings ➔ ➔ ➔

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies): <b>FUMIKAZU SHIMOSHIKIRYOH</b>		2. Name and address of receiving party(ies):  Name: <b>SHARP KABUSHIKI KAISHA</b>  Address: <b>22-22 Nagaike-cho, Abeno-ku</b>	
Additional names(s) of conveying party(ies)		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
3. Nature of conveyance:  <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger  <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name  <input type="checkbox"/> Other _____			
Execution Date: <b>August 2, 1999</b>		City: <b>Osaka</b> State/Prov.: _____  Country: <b>Japan</b> ZIP: _____	
Additional name(s) & address(es)		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
4. Application number(s) or registration numbers(s):  If this document is being filed together with a new application, the execution date of the application is: <b>August 2, 1999</b>			
Patent Application No.	Filing date	B. Patent No.(s)	
09/342,776	6/29/99		
Additional numbers		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Name and address of party to whom correspondence concerning document should be mailed:		6. Total number of applications and patents involved: <b>1</b>	
Name: <b>David G. Conlin</b>		7. Total fee (37 CFR 3.41): ..... \$ <b>40.00</b>	
Registration No. <b>27026</b>		<input checked="" type="checkbox"/> Enclosed - Any excess or insufficiency should be credited or debited to deposit account	
Address: <b>Dike, Bronstein, Roberts &amp; Cushman, LLP</b>		<input type="checkbox"/> Authorized to be charged to deposit account	
130 Water Street		8. Deposit account number:	
City: <b>Boston</b> State/Prov.: <b>MA</b>		<b>04-1105</b>	
Country: <b>USA</b> ZIP: <b>02109</b>			

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#### 9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

**David G. Conlin**

**September 22, 1999**

Name of Person Signing

**Signature**

Date

**ASSIGNMENT**

WHEREAS, The ASSIGNOR, comprising the following named inventor(s):

1. Fumikazu SHIMOSHIKIRYOH; Akebono-ryo 346, 2613-1,  
Ichinomoto-cho,  
Tenri-shi, Nara-ken Japan

has invented and owns a certain invention entitled:

**LIQUID CRYSTAL DISPLAY DEVICE**

for which application for Letters Patent of the United States was filed on June 29, 1999, and assigned Serial No. 09/342,776, and

WHEREAS, the ASSIGNEE:

SHARP KABUSHIKI KAISHA

22-22, Nagaike-cho, Abeno-ku, Osaka 545-8522 Japan

is desirous of acquiring the entire interest in, to and under said invention and the United States Letters Patent to be obtained therefor;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that in consideration of the payment by ASSIGNEE to ASSIGNOR of the sum corresponding to One Dollar (\$1.00), the receipt of which is hereby acknowledged, and for other good and valuable consideration, ASSIGNOR hereby sells, assigns and transfers to ASSIGNEE the full and exclusive right, title and interest to said invention and all Letters Patent of the United States to be obtained therefor on said application or any continuation, division, renewal, substitute or reissue thereof for the full term or terms for which the same may be granted.

ASSIGNOR hereby covenants that no assignment sale agreement charge or other encumbrance has been or will be entered into which would conflict with this assignment and sale;

ASSIGNOR further covenants that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent as may be known and accessible to ASSIGNOR and will testify as to the same in any interference or litigation related thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain and enforce said application, said invention and said Letters Patent which may be necessary or desirable to carry out the purposes hereof.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seal

this 2nd day of August, 1999.

1. Fumikazu Shimoshikiyoh  
(Fumikazu SHIMOSHIKIRYOH)